



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,258	04/10/2006	Carlo Migli	Q93671	8810
23373 7590 01/19/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
O'BRIEN, JEFFREY D				
ART UNIT		PAPER NUMBER		
3677				
NOTIFICATION DATE		DELIVERY MODE		
01/19/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com  
PPROCESSING@SUGHRUE.COM  
USPTO@SUGHRUE.COM

### Office Action Summary

**Application No.**

10/575,258

**Applicant(s)**

MIGLI, CARLO

**Examiner**

Jeffrey O'Brien

**Art Unit**

3677

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 14-41 is/are pending in the application.
- 4a) Of the above claim(s) 6, 17, 20-22 and 35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-12, 14-16, 18, 19, 23, 25, 33, 34 and 36-41 is/are rejected.
- 7) ☒ Claim(s) 26-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Proficiency's Patent Drawing Review (PTO-544)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 14 and 19 are objected to because of the following informalities: Claims 14 and 19 are amended, however they have a status identifier of "previously presented". Applicant is reminded to indicate all claims with the proper status identifiers. Appropriate correction is required.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. Due to the length of the specification, not all errors are pointed out. Applicant is required to review the application to ensure no further errors are present.
4. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-5, 7-8, 25, 33-34, and 37-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Salice (US 7,497,532) herein referred to as '532.

9. For Claim 1, '532 discloses a hinge assembly (Fig. 2) for the connection of a vertically opening panel (2) to an element (1) between a closing position (Fig. 1) and an opening position (Fig. 2) comprising:

a supporting base (annotated Fig. 2: A);

a lifting lever (6) operatively connected to the panel (2) and directly hinged to the supporting base (A) about a first pivoting axis (at 5) between said closing and opening positions of the panel;

a balancing device (8) hinged to the supporting base (A) about a second pivoting axis (7) and acting on the lifting lever (6) along a direction of thrust defined by a line joining the second pivoting axis and a point of application of the thrust on the lifting lever to at least partially counterbalance the weight of the panel during rotation of the lever about said first pivoting axis (as seen in Fig. 2);

wherein the second pivoting axis (7) defines with the first pivoting axis (5) a dead center plane (as seen in Figs. 1-2);

wherein the first pivoting axis (5) and said balancing device (8) are positioned above an upper surface (3) of the element (1) in the mounting position of the hinge assembly (as seen in Figs. 1-2);

wherein in said closing position (Fig. 2) of the panel the second pivoting axis (7) is interposed between the panel (2) and the first pivoting axis (5); and

wherein the direction of thrust of the balancing device during operation is never below said dead center plane (as seen in Fig. 2); and

wherein said balancing device (8) comprises an adjustment device (10) for adjusting the thrusting force exerted by the balancing device on the lifting lever.

10. For Claim 2, '532 discloses the hinge assembly according to claim 1, wherein said balancing device and said lifting lever are mounted above said supporting base (as seen in Figs. 1-2).

11. For Claim 3, '532 discloses the hinge assembly according to claim 1, wherein said lifting lever (6) is operatively connected to the panel (2) by means of at least one fastening element (11) associated to the lifting lever by means of a connecting arm (portion extending from member 11).

12. For Claim 4, '532 discloses the hinge assembly according to claim 3, wherein said at least one fastening element (11) is constituted by a portion of the connecting arm (portion extending from member 11) distal with respect to the lifting lever (6).

13. For Claim 5, '532 discloses the hinge assembly according to claim 3, wherein the lifting lever (6) is provided with hooking means (17) capable of cooperating with a portion of the connecting arm (portion extending from member 11) proximal to the lever (6).

14. For Claim 7, '532 discloses the hinge assembly according to claim 4, wherein said at least one fastening element (11) is constituted by a substantially plate-shaped element capable of being laterally associated to the panel at an upper end thereof (as seen in Figs. 1-2).

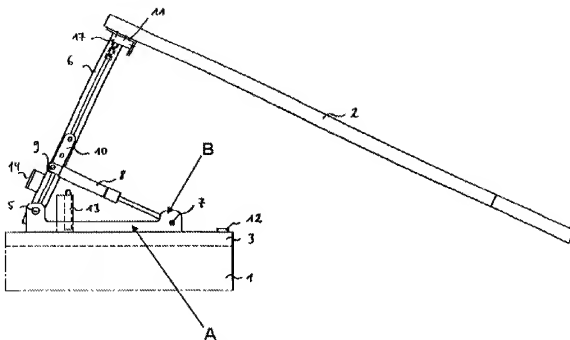
15. For Claim 8, '532 discloses the hinge assembly according to claim 1, wherein the balancing device (8) comprises a spring group capable of exerting a thrusting action on the lifting lever to at least partially counterbalance the weight of the panel during rotation of the lifting lever about said first pivoting axis.

16. For Claim 25, '532 discloses an angular adjustment device (at pin 7) for adjusting the angular position of the direction of thrust exerted by the balancing device on the lifting lever (6) with respect to said dead center plane passing through the second pivoting axis (7) and the first pivoting axis (5).

17. For Claim 33, '532 discloses the hinge assembly according to claim 1 or 25, wherein the direction of thrust exerted by the balancing device forms an angle of about 0 degrees to about 30 degrees with respect to the dead center plane (as seen in Fig. 2).

18. For Claim 34, '532 discloses the hinge assembly according to claim 25, wherein said angular adjustment device is housed in a respective housing space defined within the lifting lever (as seen in Figs. 1-2)

19. For Claims 37-40, '532 clearly discloses an element (1) having the hinge of claim 1 and every other element of the hinge.



Annotated Fig. 2

**Claim Rejections - 35 USC § 103**

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
22. Claims 8-12, 14-16, 23-25, 36 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice (US 7,497,532) herein referred to as '532 in view of CH 364711 herein referred to as '711.
23. For Claims 8-12, 14-16, 23-25 and 36, '532 discloses each and every element except those outlined below which are taught by '711. It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the gas spring element of '532 with the steel spring element and corresponding structure of '711 in order to reduce cost.
24. For Claim 8, '711 teaches wherein a balancing device (Fig. 2: 20, 23) comprises a spring group (23) adapted to exert a thrusting action on the lifting lever (17) to at least partially counterbalance the weight of the panel during rotation of the lifting lever (17) about said pivoting axis.
25. For Claim 9, '711 teaches the hinge assembly according to claim 8, wherein said spring group (23) comprises at least one spring (23) received in a hollow supporting body (20).



26. For Claim 10, '711 teaches the hinge assembly according to claim 9, wherein said hollow body (20) is hinged to a supporting base (18) at an end of the hollow body (20) distal (right side as viewed in Fig. 2) with respect to a lifting lever (17).

27. For Claim 11, '711 teaches the hinge assembly according to claim 10, wherein said hollow body (20) is hinged to at least one supporting wall (22) extending laterally to the supporting base (18). Further, '532 discloses the hinge assembly hinged to a supporting wall (annotated Fig. 2: B) extending from the supporting base (A).

28. For Claim 12, both '532 and '711 disclose the hinge assembly according to claim 11, wherein said supporting wall integrally extends from the supporting base.

29. For Claim 14, '711 teaches the hinge assembly according to claim 1 or 8, having an adjustment device (19), wherein said adjustment device (19) comprises a cap (19) for closing the distal end of the hollow body, said cap being adjustably positionable along the axial direction and being adapted to cooperate in abutment relationship with a free end of at least one spring of said spring group.

30. For Claim 15, '711 teaches the hinge assembly according to claim 14, further comprising at least one abutment element (end portion of element 16) capable of limiting the extraction of the closing cap from the distal end of the hollow body housing said at least one spring.

31. For Claim 16, '711 teaches the hinge assembly according to claim 15, wherein said at least one abutment element (end portion of 16) integrally extends from the supporting base (18).

32. For Claim 23, '711 teaches the hinge assembly according to claim 9, wherein said spring group (23) comprises at least one pushing element (25) slidably mounted in said hollow supporting body (20) and urged by said at least one spring (23) towards the lifting lever (17).

33. For Claim 24, '711 teaches the hinge assembly according to claim 9 or 23, wherein said spring group (23) comprises at least one spring-guiding stem (19) extending from said pushing element (25).

34. For Claim 25, '711 teaches the hinge assembly according to claim 1, further comprising an angular adjustment device (21) for adjusting the angular position of the direction of thrust exerted by the balancing device (20, 23) on the lifting lever (17) with respect to a dead centre plane passing through the second pivoting axis and through the first pivoting axis.

35. For Claim 36, '711 teaches the hinge assembly according to claim 1, further comprising friction means (at 21 and 25) to adjust the value of the lifting torque exerted by the lifting lever (17) to at least partially counterbalance the weight of the panel.

36. For Claim 41, '711 teaches the hinge assembly according to claim 8, wherein said spring group is slidably mounted in a housing space defined within the lifting lever.

37. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice (US 7,497,532) in view of CH 364711 herein referred to as '711 and further in view of Kimura et al. (US 4,365,893) herein referred to as '893.

38. For Claims 18 and 19, '532 in view of '711 discloses all the limitations except for the hinge having a housing space in which the balancing device is contained and

wherein a spring group is slidably mounted. '893 clearly shows these limitations in Figs. 3-6. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the housing of '893 to the hinge of '711 in order to protect the hinge mechanism from dust and dirt, as well as to prevent fingers from being caught in the balancing device.

***Allowable Subject Matter***

40. Claims 26-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

41. Applicant's arguments filed 11/10/2009 have been fully considered but they are not persuasive.

42. Applicant argues that '711 does not disclose an adjustment device for adjusting the thrusting force exerted by the balancing device. However as seen in Figure 2 of '711, the member 19 is pressed by the end of arm 17 to adjust the amount of tension in the spring, which in turn adjusts the force applied. This force is adjusted based on the angle of the panel with respect to the base, and therefore '532 in view of '711 meets all the claimed limitations. It is further noted that '532 further teaches an adjustment device 10 which meets the broadest limitation as amended in claim 1, and that '711 is relied upon to meet the limitations of claim 14 which depend from claims 1 OR 8.

43. Applicant further argues that one would not be motivated to modify '532 by '711, however both inventions are within the same art of hinges and one of ordinary skill in

the art would be motivated to apply structural elements of '711 to the hinge of '532 in order to replace the gas spring with a steel spring structure in order to reduce the cost of the hinge device.

44. Regarding Applicant's arguments that it would not be obvious to modify '532 by '711 because several of the hinge parts are arranged oppositely to one another (regarding the pivoting axis, etc) it has been held that the test for obviousness is not whether the features of one reference may be bodily incorporated into the other to produce the claimed subject matter but simply what the combination of references makes obvious to one of ordinary skill in the pertinent art. It is therefore maintained that one of ordinary skill in the art would have reasonably looked to the teachings of '711 to modify the hinge of '532.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey O'Brien whose telephone number is (571)270-3655. The examiner can normally be reached on Monday through Thursday 7:30am-5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on 571-272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor Batson/  
Supervisory Patent Examiner, Art Unit 3677

/JO/  
JO